Learning from the PREPARED Experience: Recommendations for Enhancing the Effectiveness and Credibility of New Ethics Codes

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Abstract. As the risks of ethics and integrity breaches are higher during times of crisis, guidance that enables accelerated research without violating ethics values is essential. This chapter draws upon the lessons learned from a broad range of activities underpinning the development of the PREPARED Code to make recommendations for future developers of ethics codes. Recommendations take the form of key ingredients to help future developers enhance the effectiveness and credibility of ethics codes: building the code on real world risks, aligned with moral values, through transparent and inclusive development processes and with implementation support.

Keywords: Recommendations · ethics code development · inclusivity · moral values · risk-based · accessibility

1 Introduction

The chapters in this book guide the reader through the process of developing the PREPARED Code. In this final chapter, we draw from the PREPARED experience to present recommendations which we hope will serve as a valuable resource for future developers of ethics codes. These recommendations take the form of six key ingredients that we put forward to help enhance the effectiveness and credibility of new ethics codes (see Fig. 1).

One might question our authority to make recommendations, given that, at the time of writing, the PREPARED Code has not yet been implemented. How can we assume its effectiveness and credibility without real-world testing? The truth is, we cannot be certain. However, the TRUST Code (TRUST 2018), which was developed using the same methodological approach, has proven to be highly impactful (Chatfield and Law 2024). And in developing the PREPARED Code, the team drew upon the lessons learned from the TRUST experience, refining the process and adapting it to the context of a pandemic.

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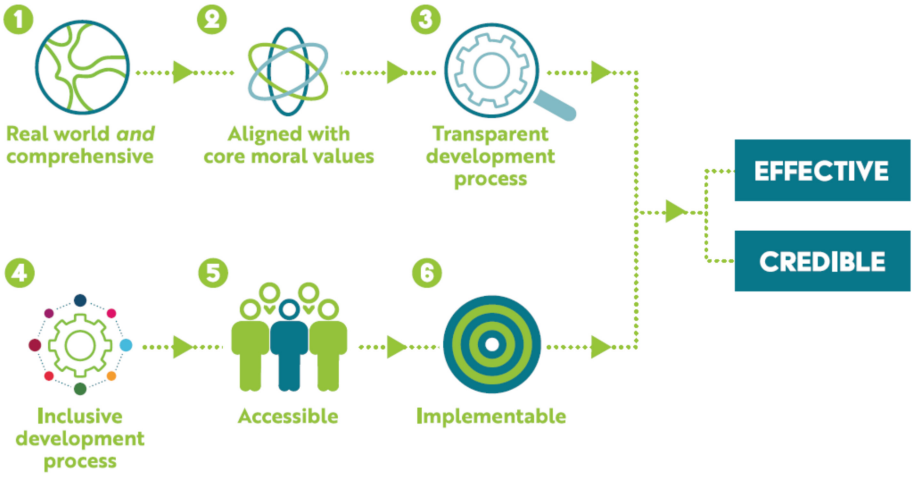

Fig. 1. Six key ingredients for the development of a new ethics code

Thus, we offer these recommendations in the spirit of sharing, hoping that insights from our experience might help to support future developments.

Nevertheless, what makes the PREPARED Code approach unique is the *combination* of these six ingredients to enhance effectiveness and credibility. This is especially important when a new ethics code is being developed for unfamiliar contexts – contexts in which, as was the case for an ethics code for research during pandemics, there is no existing, time-tested code.

Inspired by the TRUST and PREPARED experiences, the following sections explain the recommended six key ingredients for ethics code development.

2 Real World and Comprehensive

A fundamental first step in the development of any new code of conduct is deciding what ethical issues or risks need to be addressed. As explained in Chap. 3, there are various ways of doing this, for instance by drawing upon existing codes or the experiences and knowledge of experts and code drafters. However, these methods might lead drafters to include issues simply because they appear in existing ethics codes, or because the guidance drafters or experts *assume* them to be problems. The concern here is that challenges identified in this way might not reflect what happens in the real world, or might not capture the full extent of the challenges.

Alternatively, one can take a risk-based approach to identifying what needs to be addressed, as was done in the case of the TRUST and PREPARED Codes. This approach identifies *only* real-world challenges, which serves as a crucial reality check, a key strength of the approach being that ethical requirements are grounded in actual risks and informed by diverse voices and experiences through extensive literature reviews, empirical work and consultations. Additionally, the broader the search for potential risks, the more likely it is that most will be identified. Hence, in our case, the great effort

that was put into identifying the pandemic challenges for research ethics and research integrity over almost two years, across research disciplines, languages and cultures, contributed to the achievement of comprehensiveness. The risk-based approach has ensured that the PREPARED Code is both reflective of what happens in the real world and comprehensive.

3 Aligned with Core Moral Values

The risk-based approach offers a reliable way of telling us *what* needs to be addressed by a code of ethics, but it does not tell us anything about *how* these matters should be addressed. To ensure ethical decision-making, action-guiding codes of conduct must be grounded in a coherent moral framework. For the PREPARED Code, this framework is values-based, which involves the explicit adoption of specific moral values: fairness, respect, care, and honesty. These values guide decision-making and dispose the individual towards one course of action over another (Chatfield and Law 2024). While the choice of values may differ for other codes of ethics, the importance of alignment with core moral values should not be underestimated.

There are two main reasons why this is the case. First, a defining characteristic of values is their motivational power. This is especially true for values with explicit moral significance, which are often regarded as the most important (Schwartz 2012). Extensive empirical research on values has demonstrated that they play a crucial role in shaping behaviour, guiding decision-making and motivating individuals (Hitlin and Piliavin 2004; Illies and Reiter-Palmon 2004; Fritzsche and Oz 2007; Schwartz 2013).

Second, there is a significant body of research demonstrating that when people work in environments that are congruent with their core personal values, they assume greater personal responsibility, experience higher job satisfaction and enjoy improved wellbeing (Deci and Ryan 2000; Van Vianen 2000; Posner 2010; Schwartz and Sortheix 2018).

Thus, to motivate ethical action, it is important not only that codes are aligned with moral values, but also that these values resonate with the intended users of the code.

4 Transparent Development Process

Kaptein and Schwartz (2008) make the point, which we take further in Chap. 3, that knowing how a code was developed is a prerequisite to measuring its effectiveness. It must be clear who authored the code, and the rationale behind its creation must be transparent, because it is the behind-the-scenes *process* of code development that confers credibility (Messikomer and Cirka 2010). We therefore recommend that code authors document their development process carefully and make that documentation publicly available, just as we are doing through this book for the PREPARED Code.

5 Inclusive Development Process

Washington and Kuo (2020) emphasise that ethics codes often reflect the perspectives of those in power, which can have the effect of excluding perspectives from marginalised communities. They argue for incorporating diverse voices to ensure that ethics codes

do not unintentionally prejudice groups in vulnerable situations. We believe that ethics codes should not be developed in isolation by an ad hoc group; a code is more likely to achieve credibility if the drafting process actively seeks and encourages broad participation (Messikomer and Cirka 2010). Engaging a diverse range of stakeholders in the development process helps create an ethics code that is comprehensive, equitably reflects diverse views and is culturally sensitive, ultimately securing its acceptance across different communities, research disciplines and geographic locations.

Inclusivity was central to the PREPARED Code's development, which incorporated diverse perspectives from across the globe, as shown in Fig. 2, reproduced here as Fig. 2.

Fig. 2. PREPARED Code authors: the geography

The process was further enriched by consultations with a wide range of stakeholders, including researchers, policymakers, research funders, publishers, NGOs and governance organisations. Notably, it also included input from communities worst afflicted during the pandemic (e.g. individuals on the poverty line and disabled people), ensuring that their perspectives were integrated into the ethics code.

Inclusivity also shaped every stage and aspect of evidence gathering, from working in multiple languages to engaging marginalised population groups through sensitive and appropriate methods. The PREPARED team actively sought dialogue with all groups that might be impacted by the code and encouraged discussion among them. By listening to the experiences and perspectives of a wide range of research stakeholders, the PREPARED team was able to co-create a code that will hopefully be widely acceptable to all involved in the research process.

6 Accessible

An accessible ethics code must be easy to understand and free of vague, complex or technical language. While we cannot say for sure that there is a direct correlation between the clarity of ethics codes and ethical behaviour, evidence exists that deficiencies in understanding contribute to research misconduct. For instance, in their qualitative interview study with scientists, Cairns et al. (2021) found that half of the participants referenced a lack of understanding of research ethics as a cause of unethical behaviour. The use of clear, unambiguous language in ethics guidance is therefore crucial.

The accessibility of any document can also be affected by its structure and length. For instance, the excessive length of an ethics document can discourage attempts to read it (Schwartz 2004). In Cameroon, for example, the important factors for research ethics procedures were identified as brevity, simplicity, clarity and user-friendliness.

> Whatever is brief and clear is better than what is not and saves time. What is simple and user-friendly is better than what is not even though the two have the same aims because it saves both time and mental energy. (Ouwe Missi Oukem-Boyer et al. 2016).

To enhance accessibility, the PREPARED team created a code that is concise, engaging and free of unnecessary jargon, thus ensuring clarity for researchers, funders, policymakers and public alike. This approach of making the PREPARED Code user-friendly, even for those without specialised knowledge of research ethics and research integrity, reflects a broader commitment to accessibility and transparency in research. Additionally, the Code was translated into twelve languages (Arabic, Chinese, Finnish, French, German, Greek, Italian, Korean, Lithuanian, Portuguese, Swahili and Spanish), thereby maximising its reach.

7 Implementable

An ethics code alone does not ensure ethical research (Nijhof et al. 2003). A real challenge for any new code is to raise awareness and demonstrate its practical applicability. The PREPARED team addressed this challenge by developing a range of resources designed to support the understanding and application of the PREPARED Code. These materials are not just informative but also encourage ethical reflection, prompting researchers to move beyond theoretical knowledge and actively engage with the real-world dilemmas they may encounter during crises.

The vital need for effective ethics training to complement any ethics code is broadly recognised (Schwartz 2004). Acknowledging that ethics training can often be dense and difficult to engage with (Miller-Dykeman n.d.), the authors of Chap. 6 share their insights on creating ethics training that tries to reflect the code's qualities of accessibility: concise, engaging, and free from jargon. They also offer practical strategies for developing such training and ensuring it reaches a global audience of researchers in a user-friendly and effective way. For instance:

- To ensure clarity and accessibility across diverse cultural, linguistic and geographic contexts, training clips were created to explain and contextualise each guidance article in the code.

- Recognising that a resilient research ecosystem requires the adaptation of existing processes, the team developed stakeholder-specific guidelines. These were designed to be aligned with the established procedures of research ethics committees, publishers, editors and research-performing institutions, facilitating seamless integration.
- To deepen engagement, the project prioritised interactive formats such as video clips, polls and discussions. Additionally, many training materials are available through the PREPARED mobile app, which offers global access and ease of use. The free PREPARED Case Study app presents research ethics training that is self-paced, engaging, interactive and conveniently packaged to enable smartphone access for both Android and iPhone users. The cases are mostly built on real-life examples, so as to be relatable to researchers, thereby increasing the likelihood of deep reflection, recall and application (Schroeder et al. 2025).

The authors encourage future ethics initiatives to go beyond simply drafting codes by offering practical tools that promote ethical reflection and accessibility.

8 Final Words

Ultimately, we hope that this code is never needed – that the devastation of the COVID-19 pandemic will not be repeated – but science warns us otherwise. The risk of a pandemic in the coming decades is ever-present and may be growing due to factors like urbanisation and climate change (Williams et al. 2023). According to Smith (2024), preparing for the next pandemic will require a blueprint to accelerate the organisation, coordination and conduct of critical research and development. This blueprint should be grounded in ethical commitments, standards and judgments that are capable of informing research priorities, collaboration and partnerships, and equitable data and benefit-sharing. It should also exemplify respect for all affected.

We are confident that the PREPARED code will be a valuable addition to this blueprint, through its strong ethical grounding, transparent and inclusive development process, and easy accessibility, aided by careful consideration of its future implementation through unique and innovative tools.

The final words in this book come from the lead author of the PREPARED Code, Prof. Doris Schroeder.

Standing on the Shoulders of Crowds – Ethically

Research ethics is a small, specialised field. Many people associate it with no more than a box-ticking exercise, a routine pit stop prior to setting off on the main track. It might surprise them to know that there are people whose research is actually *on* research ethics and research integrity. Perhaps they say to themselves: "How tedious! Don't they want to join the real race themselves?"

And it isn't only researchers who think this way, judging from the ethics offers in bookstores. The general public seem keen to read about a huge range of ethics topics, such as the ethics of hedonism, stoicism, climate responsibility or animal experimentation, or ethical issues in artificial intelligence. But will they want to read about research ethics or research integrity? No. At a stretch they might want to read about scandals. But who would want to read, in their leisure time, about data protection or about stopping the falsification of data?

That is what happens when a field becomes overly technical, when only technocratic elites can understand and contribute to discussions. In the context of politics, Michael Sandel (2020: 28) described it like this: "Our technocratic version of meritocracy severs the link between merit and moral judgment."

By making the TRUST and PREPARED Codes short, accessible, jargon-free, values-driven and co-created with groups in vulnerable situations, we want to open a door – a door from the pit stop onto the main track. In his Foreword, Michael Makanga has already opened it: "The world would be a better place if more human activities were governed by fairness, respect, care and honesty."

Professional ethics and how to conduct oneself, in our case as researchers, should not just be a technical study for a handful of people. It should be understandable to all. A *Nature* (2021) editorial described this aptly:

The metaphor "standing on the shoulders of giants" has been much overused by scientists ... Today, such "giants" are not only the investigators ... but also every other participant in the research process. The future lies in standing on the shoulders of crowds.

"Standing on the shoulders of crowds" means that mindsets and practices that are unfair, exploitative, and non-inclusive have to change. It means that the crowds must be equipped to understand and trust the ethical foundations of an activity. Fairness, respect, care and honesty could constitute such an ethical foundation, even for the main track itself, not just an ethics pit stop.

Doris Schroeder

Fig. 3. Fairness, respect, care and honesty

References

Cairns, A.C., Linville, C., Garcia, T., et al.: A phenomenographic study of scientists' beliefs about the causes of scientists' research misconduct. Res. Ethics **17**(4), 501–521 (2021). https://doi.org/10.1177/17470161211042658

Chatfield, K., Law, E.: 'I should do what?' Addressing research misconduct through values alignment. Res. Ethics **20**(2), 251–271 (2024). https://doi.org/10.1177/17470161231224481

Deci, E.L., Ryan, R.M.: The 'what' and 'why' of goal pursuits: human needs and the self-determination of behavior. Psychol. Inq. **11**(4), 227–268 (2000). https://doi.org/10.1207/S15327965PLI1104_01

Fritzsche, D., Oz, E.: Personal values' influence on the ethical dimension of decision making. J. Bus. Ethics **75**, 335–343 (2007). https://doi.org/10.1007/s10551-006-9256-5

Hitlin, S., Piliavin, J.A.: Values: reviving a dormant concept. Ann. Rev. Sociol. **30**(1), 359–393 (2004). https://doi.org/10.1146/annurev.soc.30.012703.110640

https://scienceandsociety.duke.edu/learn/ma/the-student-experience/profiles-graduates/engaging-young-scientists-in-research-ethics/. Accessed 6 Mar 2025

Illies, J.J., Reiter-Palmon, R.O.N.I.: The effects of type and level of personal involvement on information search and problem solving. J. Appl. Soc. Psychol. **34**(8), 1709–1729 (2004). https://doi.org/10.1111/j.1559-1816.2004.tb02794.x

Kaptein, M., Schwartz, M.S.: The effectiveness of business codes: a critical examination of existing studies and the development of an integrated research model. J. Bus. Ethics **77**, 111–127 (2008). https://doi.org/10.1007/s10551-006-9305-0

Messikomer, C.M., Cirka, C.C.: Constructing a code of ethics: an experiential case of a national professional organization. J. Bus. Ethics **95**, 55–71 (2010). https://doi.org/10.1007/s10551-009-0347-y

Miller-Dykeman, A.: Change is needed in research ethics training for young scientists. Alumni Reflections, Duke Science and Society (n.d.)

Nature: Research collaborations bring big rewards: the world needs more. Nature **594**(7863), 301–302 (2021). https://doi.org/10.1038/d41586-021-01581-z

Nijhof, A., Cludts, S., Fisscher, O., Laan, A.: Measuring the implementation of codes of conduct: an assessment method based on a process approach of the responsible organisation. J. Bus. Ethics **45**, 65–78 (2003). https://doi.org/10.1023/A:1024172412561

Ouwe Missi Oukem-Boyer, O., Munung, N.S., Tangwa, G.B.: Small is beautiful: demystifying and simplifying standard operating procedures: a model from the ethics review and consultancy committee of the Cameroon bioethics initiative. BMC Med. Ethics **17**(27), 1 (2016). https://doi.org/10.1186/s12910-016-0110-8

Posner, B.Z.: Another look at the impact of personal and organizational values congruency. J. Bus. Ethics **97**(4), 535–541 (2010). https://doi.org/10.1007/s10551-010-0530-1

Sandel, M.: The tyranny of Merit: What's Become of the Common Good? Farrar Straus and Giroux, Kindle edn. (2020)

Schroeder, D., Paspallis, N., Kasenides, N., et al.: The PREPARED case study app for deep reflection on research ethics challenges during crisis. Nat. Med. (2025, in press)

Schwartz, M.S.: Effective corporate codes of ethics: perceptions of code users. J. Bus. Ethics **55**, 321–341 (2004). https://doi.org/10.1007/s10551-004-2169-2

Schwartz, S.: Value priorities and behavior: applying a theory of integrated value systems. In: Seligman, C., Olson, J.M., Zanna, M.P. (eds.) The Psychology of Values, 1st edn. Lawrence Erlbaum Associates, Mahwah, pp. 1–24 (2013). https://doi.org/10.4324/9780203773857

Schwartz, S.H.: An overview of the Schwartz theory of basic values. Online Read. Psychol. Cult. **2**(1), 2307–0919 (2012). https://doi.org/10.9707/2307-0919.1116

Schwartz, S.H., Sortheix, F.: Values and subjective well-being. In: Diener, E., Oishi, S., Tay, L. (eds.) Handbook of Well-Being, pp 833–847. DEF Publishers, Salt Lake City (2018). https://static1.squarespace.com/static/65f0a38858b34640d8d1d19a/t/663ba4b32297654ef513dcc0/1715184831926/Handbook-of-Well-Being.pdf. Accessed 6 Mar 2025

Smith, M.J.: Ethics of pandemic research. In: Sorenson, R.A. (ed.) Principles and Practice of Emergency Research Response, pp. 73–90. Springer, Cham (2024). https://doi.org/10.1007/978-3-031-48408-7_4

TRUST: The TRUST code: a global code of conduct for equitable research partnerships (2018). https://doi.org/10.48508/GCC/2018.05

Van Vianen, A.E.: Person-organization fit: the match between newcomers' and recruiters' preferences for organizational cultures. Pers. Psychol. **53**(1), 113–149 (2000). https://doi.org/10.1111/j.1744-6570.2000.tb00196.x

Washington, A.L., Kuo, R.: Whose side are ethics codes on? Power, responsibility and the social good. In: Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency, pp. 230–240 (2020). https://doi.org/10.1145/3351095.3372844

Williams, B.A., Jones, C.H., Welch, V., et al.: Outlook of pandemic preparedness in a post-COVID-19 world. npj Vaccines **8**(178), 1–12 (2023). https://doi.org/10.1038/s41541-023-00773-0